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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/608,521	06/30/2000	Raju C. Bopardikar	C0012/7000	1111
64967 7590 06/28/2007 LAW OFFICES OF PAUL E. KUDIRKA 40 BROAD STREET SUITE 300 BOSTON, MA 02109			EXAMINER MIRZA, ADNAN M	
			ART UNIT 2145	PAPER NUMBER
			MAIL DATE 06/28/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/608,521

Applicant(s)

BOPARDIKAR ET AL.

Examiner

Adnan M. Mirza

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04/05/2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 44-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 44-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-11,44-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lumelksy et al (U.S. 6,460,082) and further in view of Schaefer et al (6,157,927)..

As per claims 1,44 Lumelksy disclosed apparatus for providing high-performance, scaleable data processing and storage services to a client from a plurality of resources, comprising an access interface module which receives data storage requests and data to be stored from the client and in response to each service request and based on a workload instead of an address of each of the plurality of resources dynamically selects a subset of the plurality of resources to which the data is transferred in order to provide the requested service and distribute the workload across the plurality of resources (col. 4, lines 54-65 & col. 12, lines 46-67);

However Lumelksy fails to disclose a switch fabric for temporarily connecting the access interface module to the selected subset of the plurality of storage resources so that the data can be transferred to the selected subset of storage resources.

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In the same field of endeavor Schaefer discloses, “The resource manager has a first interface that receives XATMI service request from the component and a second interface that receives directives (e.g.; prepare, commit, abort etc.) issued by the first transaction manager for a given global transaction (col. 8, lines 25-29). The resource manager further operates to store together, in a secure storage, information required by both the first transaction (e.g. MS DTC) and the protocol machine (e.g., OSI TP protocol machine) to recover from a failure. The information for a given branch is stored in the form of a log record. A pointer to the log record of a given branch is stored in the aforementioned record for that branch. By storing recover information needed by both the first transaction manager and the protocol machine together in single log record (col. 9, lines 31-41).

It would have been obvious to one having ordinary skill in the art at the time of the invention was made to have incorporated The resource manager has a first interface that receives XATMI service request from the component and a second interface that receives directives (e.g.; prepare, commit, abort etc.) issued by the first transaction manager for a given global transaction. The resource manager further operates to store together, in a secure storage, information required by both the first transaction (e.g. MS DTC) and the protocol machine (e.g., OSI TP protocol machine) to recover from a failure. The information for a given branch is stored in the form of a log record. A pointer to the log record of a given branch is stored in the aforementioned record for that branch. By storing recover information needed by both the first transaction manager and the protocol machine together in single log record as taught by Schaefer in the method and

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system of Lumelksy to provide highly desirable resource management system and moving away from a single resource management system.

5. As per claims 2,45 Lumelksy-Schaefer disclosed wherein the access interface module selects the subset of the plurality of resources based on the relative demand placed on the subset of resources (Schaefer, col. 8, lines 42-54).

6. As per claims 3,46 Lumelksy-Schaefer disclosed wherein the switch fabric comprises a control switch fabric for transferring control information and a separate data switch fabric for transferring data (Lumelksy, col. 5, lines 5-18).

7. As per claims 4,47 Lumelksy-Schaefer disclosed wherein the control switch fabric is optimized for transferring control information and the data switch fabric is optimized for transferring data (Lumelksy, col. 5, lines 5-18).

8. As per claims 5,48 Lumelksy-Schaefer disclosed wherein the request for service includes control information and data and wherein the access interface module separates the control information and the data and transfers the data to the selected subset of resources over the data switch fabric (Lumelksy, col. 5, lines 31-43).

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9. As per claims 6,49 Lumelksy-Schaefer disclosed wherein the data switch fabric comprises a none blocking crossbar switch for data transfer and the control switch fabric comprises an Ethernet switch for control information transfer (Schaefer, col. 28, lines 22-37).
10. As per claims 7,50 Lumelksy-Schaefer disclosed further comprising a resource module connected to the plurality of resources for generating pre-allocation information that pre-allocates services from the plurality of resources in order to evenly distribute a workload 4 across the plurality of resources (Lumelksy, col. 5, lines 5-29).
11. As per claims 8,51 Lumelksy-Schaefer disclosed wherein the switch fabric connects the access interface module to the resource module so that the resource module can transfer the pre-allocation information to the access interface module (Schaefer, col. 28, lines 22-37).
12. As per claims 9,52 Lumelksy-Schaefer disclosed wherein the access interface module selects a subset of the plurality of resources based on the pre-allocation information (Lumelksy, col. 5, lines 5-29).
13. As per claims 10,53 wherein the access interface module comprises a data memory which temporarily stores information transferred between the access interface module and the selected subset of the plurality of resources (Lumelksy, col. 10, lines 16-30).

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14. As per claims 11,54 Lumelksy-Schaefer disclosed further comprising a plurality of access interface modules each access interface module receiving service requests from a plurality of clients (Schaefer, col. 28, lines 22-37).

Response to Arguments

15. Applicant's arguments filed 04/05/2007 have been fully considered but they are not persuasive. Response to applicant's arguments is as follows:

A. Applicant argued that prior art did not disclose, "a switch fabric for temporarily connecting the access interface module to the selected subset of the plurality of storage resources so that the data can be transferred to the selected subset of storage resources".

As to applicant's arguments Schaefer disclosed, "The resource manager further operates to store together, in a secure storage, information required by both the first transaction (e.g. MS DTC) and the protocol machine (e.g., OSI TP protocol machine) to recover from a failure. The information for a given branch is stored in the form of a log record. A pointer to the log record of a given branch is stored in the aforementioned record for that branch. By storing recover information needed by both the first transaction manager and the protocol machine together in single log record (col. 9, lines 31-41).

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B. Applicant argued that Lumelsky and Schaefer did not disclose the recited access module that receives data from a client and selects resources to which the data is transferred based on the workload of the resource.

As to applicant's argument Lumelsky disclosed, "The administration of a meta-source is thus able to enhance the value such meta-source offers to remote authority by reconfiguration these resource pools to suit demands. Such administration may be based on some criteria such as the expected revenue, or some other cost metric (col. 12, lines 49-54).

Conclusion

16. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Adnan Mirza whose telephone number is (571)-272-3885.

17. The examiner can normally be reached on Monday to Friday during normal business hours. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on (571)-272-3933. The fax for this group is (703)-746-7239. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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18. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866)-217-9197 (toll-free).

AM

Adnan Mirza

Examiner


JASON CARDONE
SUPERVISORY PATENT EXAMINER